



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/963,280	09/26/2001	Stanley S. Sattinger	00P7908US01	9647

7590 04/06/2006

SIEMENS CORPORATION
INTELLECTUAL PROPERTY DEPARTMENT
186 WOOD AVENUE SOUTH
ISELIN, NJ 08830

EXAMINER

FREAY, CHARLES GRANT

ART UNIT

PAPER NUMBER

3746

DATE MAILED: 04/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/963,280	Applicant(s) SATTINGER, STANLEY S.	
	Examiner Charles G. Freay	Art Unit 3746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.138(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) 10-16 and 22-24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-7,9 and 17 is/are rejected.
- 7) ☒ Claim(s) 2,8 and 18-21 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>9/2001 and 5/2002</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Applicant's election without traverse of Group I (claims 1-9 and 17-21) in the reply filed on February 13, 2006 is acknowledged.

Claim Objections

Claims 4 and 6 are objected to because of the following informalities: in claim 4 after "thickness" "is" should be inserted and in claim 6 "grater" should be "greater". Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 7 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claim is vague and indefinite because it sets forth that the surface areas of the first and second member are "maximized" between any two of the plural openings. It is unclear what "maximized" means and structure is being suggested by this limitation. Further there is no reference frame for "maximized". The surface area is determined based upon a number of factors including not only the pattern but also the size and

Art Unit: 3746

number of the holes. Because specifics of the various variables in determining the "maximized" area have not been presented it is unclear what structural limitations are being set forth in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3, 7, 9 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by UK Patent Application GB 2309296 (hereafter '296).

('296) discloses a resonator for a gas turbine combustor (note title), having a first member (109 in Fig. 1B), with a first plurality of openings (111), a second member (108) having a second plurality of openings (113). There is a volume (117) defined between the first and second member. The examiner notes that claim 1 does not mention a size of the first and second diameters. Therefore, the claim language covers the condition where the diameters are the same size. Then the first half of each opening (113) can be considered an upstream portion and the second half can be considered the downstream portion. A similar argument holds for the lengths. With regards to claim 17 a comparison to an acoustic inertance caused by a cylindrical opening is made but no specific size of the cylinder has been given so that the claim allows the selection of a different sized cylinder having a different acoustic inertance. Therefore the claim reads on cylindrical

Art Unit: 3746

openings shown in ('296). Additionally because the first and second diameters and the first and second lengths can be equal under the claim language the comparisons set forth in claim 3 can be satisfied by arbitrarily selecting the correct lengths within the passages. And the surface area of the members seems to be maximized.

Claims 1, 3, 7, 9 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by EPO 0 576 717 hereafter ('717).

('717) discloses a resonator for a gas turbine combustor (note title), having a first member (18 in Fig. 2), with a first plurality of openings (20), a second member (19) having a second plurality of openings (22). There is a volume (21) defined between the first and second member. The second openings are slanted and additionally have a constant diameter in it's central position but the openings and end portions are beveled and thus have a varying diameter. The sections of varying diameter and the central constant diameter portion form the upstream and downstream portions of the opening. Additionally because the first and second diameters and the first and second lengths can be equal under the claim language the comparisons set forth in claim 3 can be satisfied by arbitrarily selecting the correct lengths within the passages. And the surface area of the members seems to be maximized.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 3746

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over either of ('296) or ('717).

As set forth above each of ('296) and ('717) disclose gas turbine combustor resonator systems substantially as claimed. However, the claims do set forth specific thicknesses of the combustor walls and the indicated diameters and lengths. The examiner gives official notice that combustor walls are well known having a thickness greater than 0.10 inches. Additionally, as noted above, because the claim language allows the first and second diameters and lengths to be arbitrarily selected the lengths can be selected so that the sizes match those set forth in claims 5 and 6.

Allowable Subject Matter

Claims 2, 8 and 18-21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

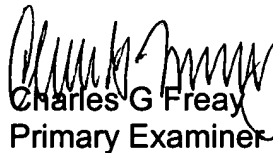
Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Mandai et al discloses a gas turbine combustor resonator.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles G. Freay whose telephone number is 571-272-4827. The examiner can normally be reached on Monday through Friday 8:30 A.M. to 5:30 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Thorpe can be reached on 571-272-4444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Charles G Freay
Primary Examiner
Art Unit 3746

CGF
March 31, 2006